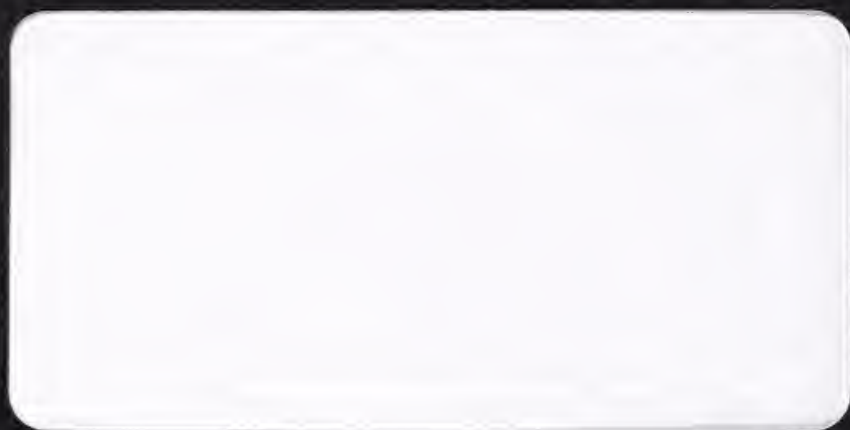


**European Software
and Services Market,
1990-1995**

**Discrete Manufacturing
and Distribution**

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European Software and Services Market, 1990-1995

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EUROPEAN SOFTWARE ^{MEIDO}
AND SERVICES MARKET, ¹⁹⁹⁰
1990-1995

AUTHOR

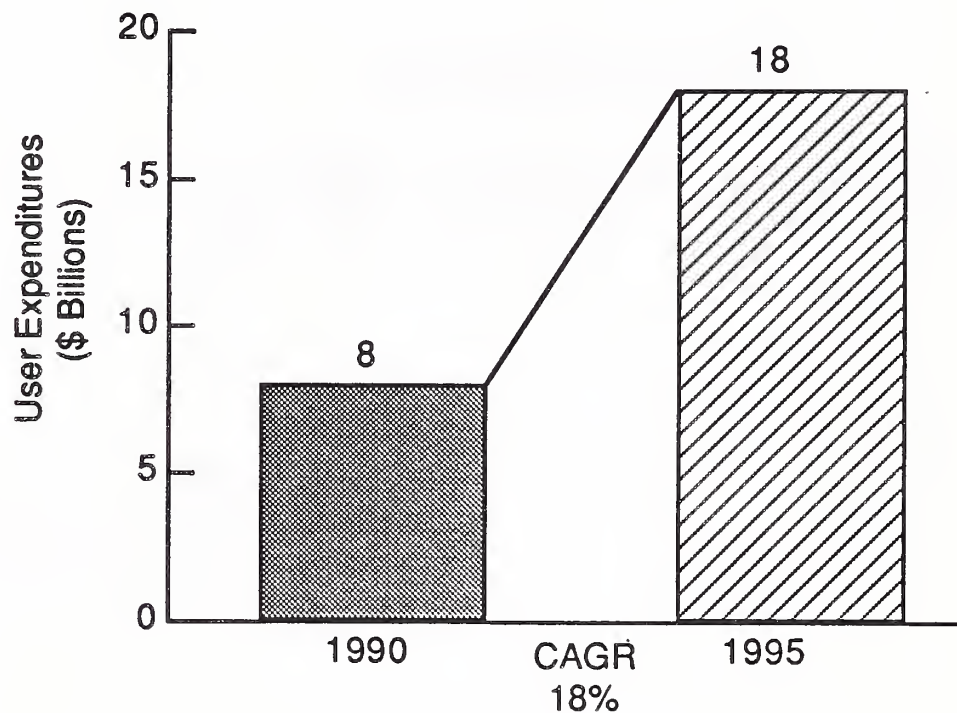
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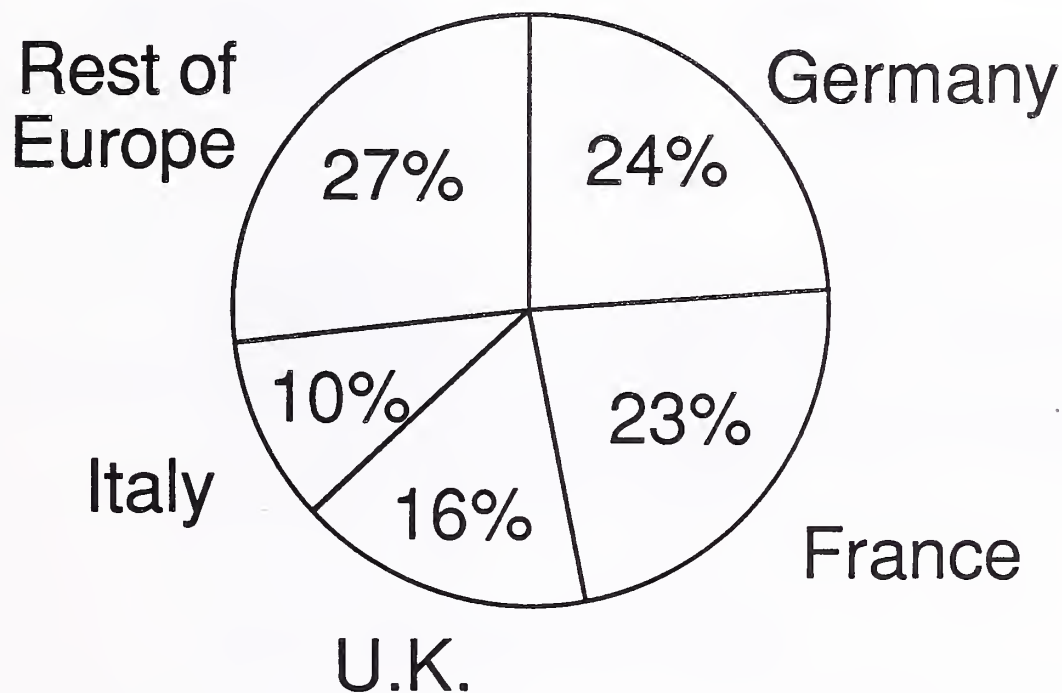
BORROWER'S NAME

Discrete Manufacturing

European Discrete Manufacturing Sector: Software and Services Market Forecast, 1990-1995



European Discrete Manufacturing Sector: Software and Services Market Percentage Distribution by Country, 1990



Total Market (1990) = \$8.0 Billion

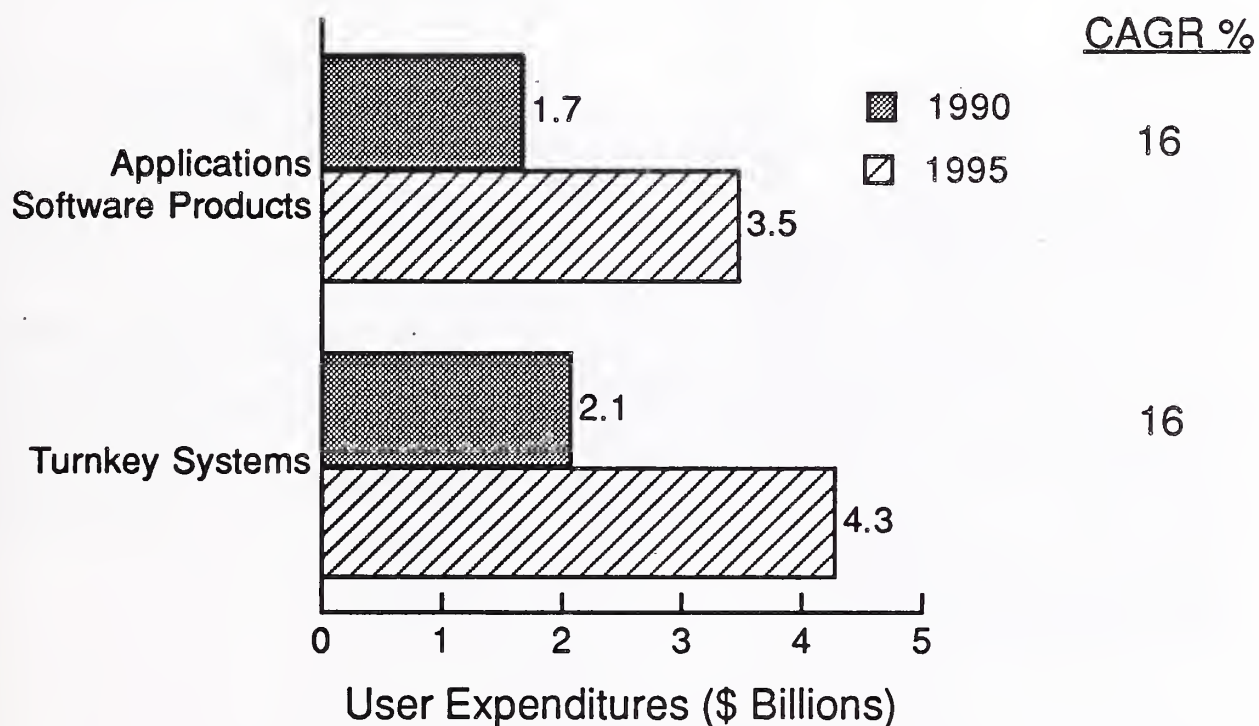
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Subsector Growth Anticipated by Software and Services Vendors

Sector	Growth Rate
Automotive	High
Aerospace	Medium-High
Electrical and Electronic	Medium
Mechanical Engineering	Low

European Discrete Manufacturing Sector: Software and Services Market Forecast, 1990-1995

Applications Software Products and Turnkey Systems



Discrete Manufacturing Sector User Purchasing Intentions

Application	Level of Purchasing Intent
Shopfloor Data Collection and Control	High
Production Management	Medium
CAD/CAM	Medium
Engineering Data Management	Low

Summary of buying intentions stated by Western European discrete manufacturing users.

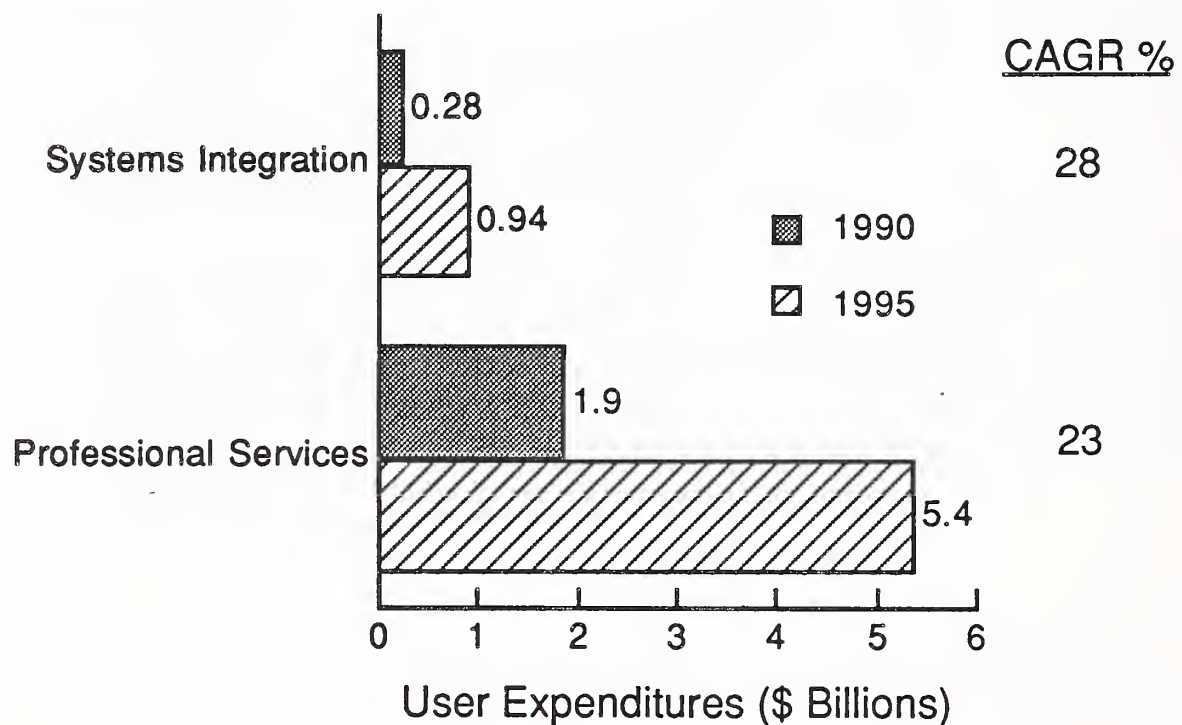
Vendors' Perception of Growth in Discrete Manufacturing Sector Software Products by Application and Equipment Platform

Application Equipment Platform	CAD/ CAM	Engineering Database Management	Production Management	Shopfloor Data Collection & Control
Microcomputer and Workstation	High	Low	Medium	High
Minicomputer	Low	High	Medium	High
Mainframe	Low	High	Low	Low

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European Discrete Manufacturing Sector Market Forecast, 1990-1995

Systems Integration and Professional Services



User Integration Plans

Area of Integration	Level of Requirement
CAD and Production Management	Very High
Production Management and Shopfloor	Very High

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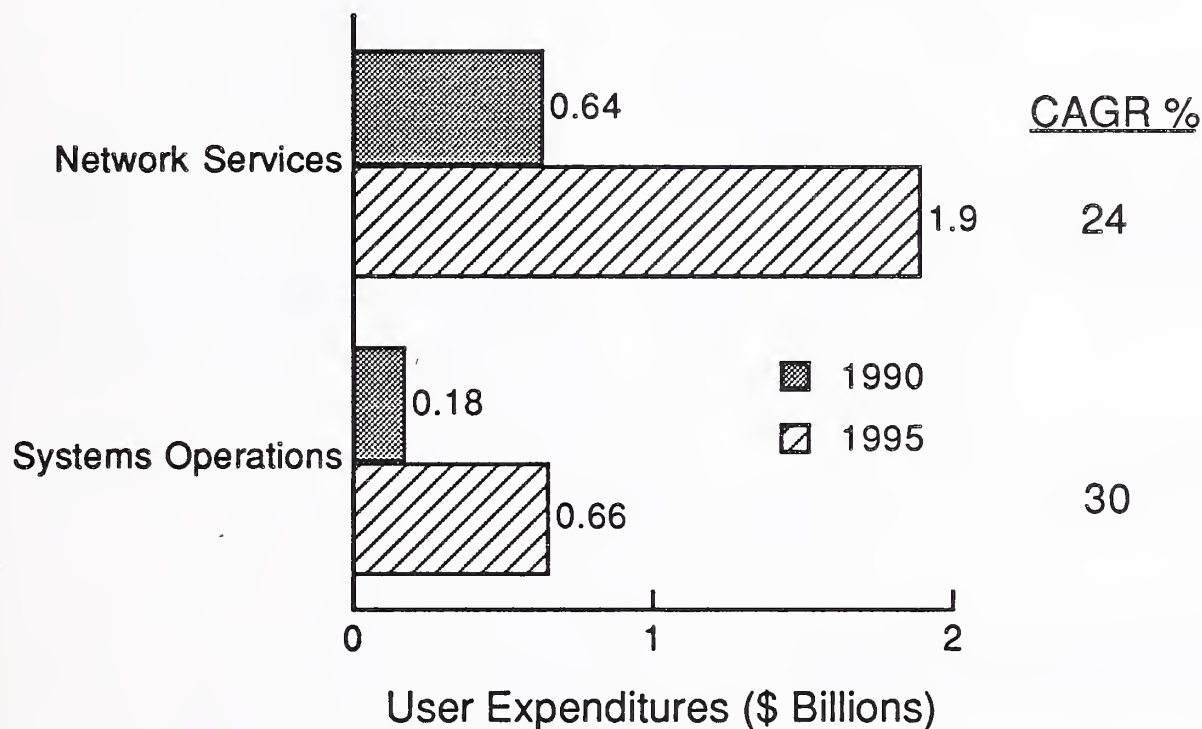
Targeting of Integration Areas by Vendors

Vendor Category \ Area of Integration	Shopfloor to Production Management	CAD/CAM to Production Management
Major Equipment Vendors	Medium	High
CAD Vendors	None	High
Professional Services Vendors	High	Low
Application Software Product Vendors	Low	None

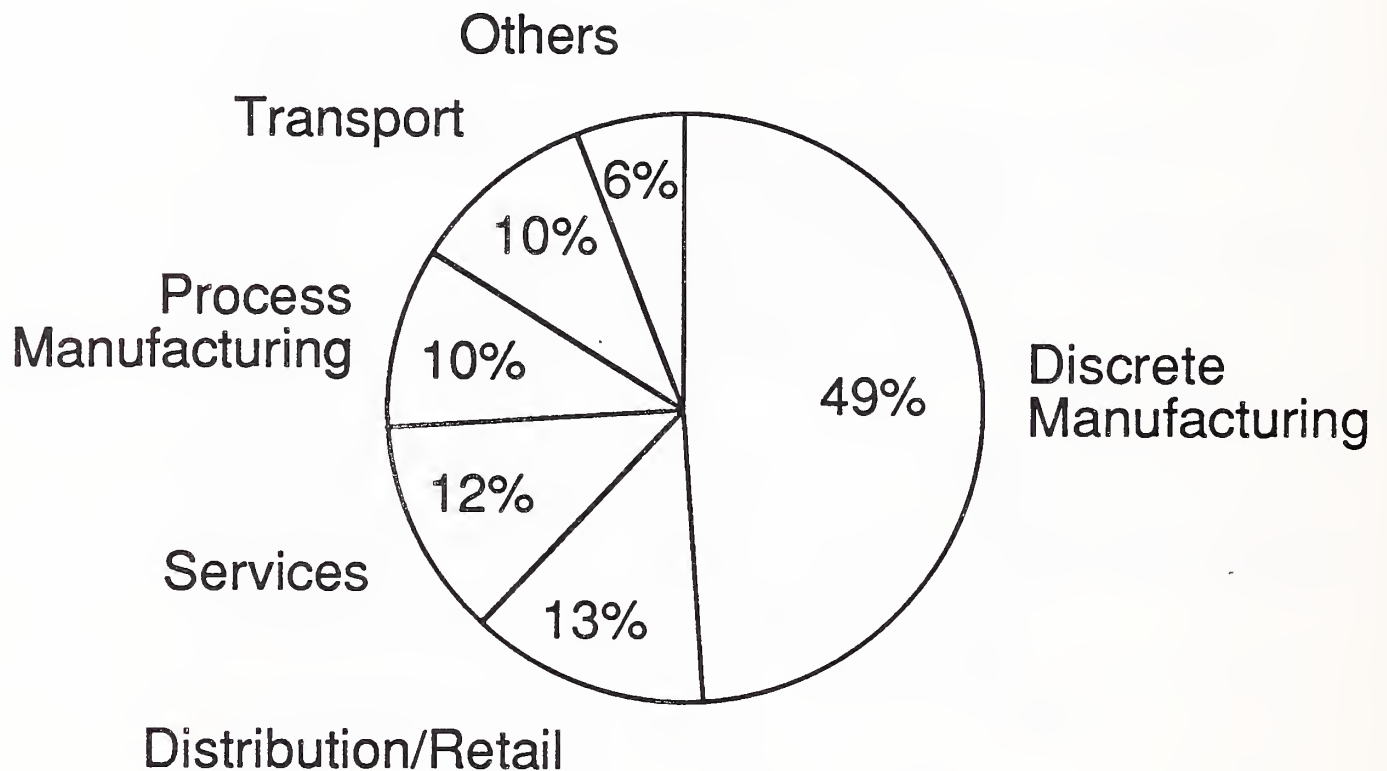
Level of interest in area of integration shown by vendors.

European Discrete Manufacturing Sector Market Forecast, 1990-1995

Network Services and Systems Operations

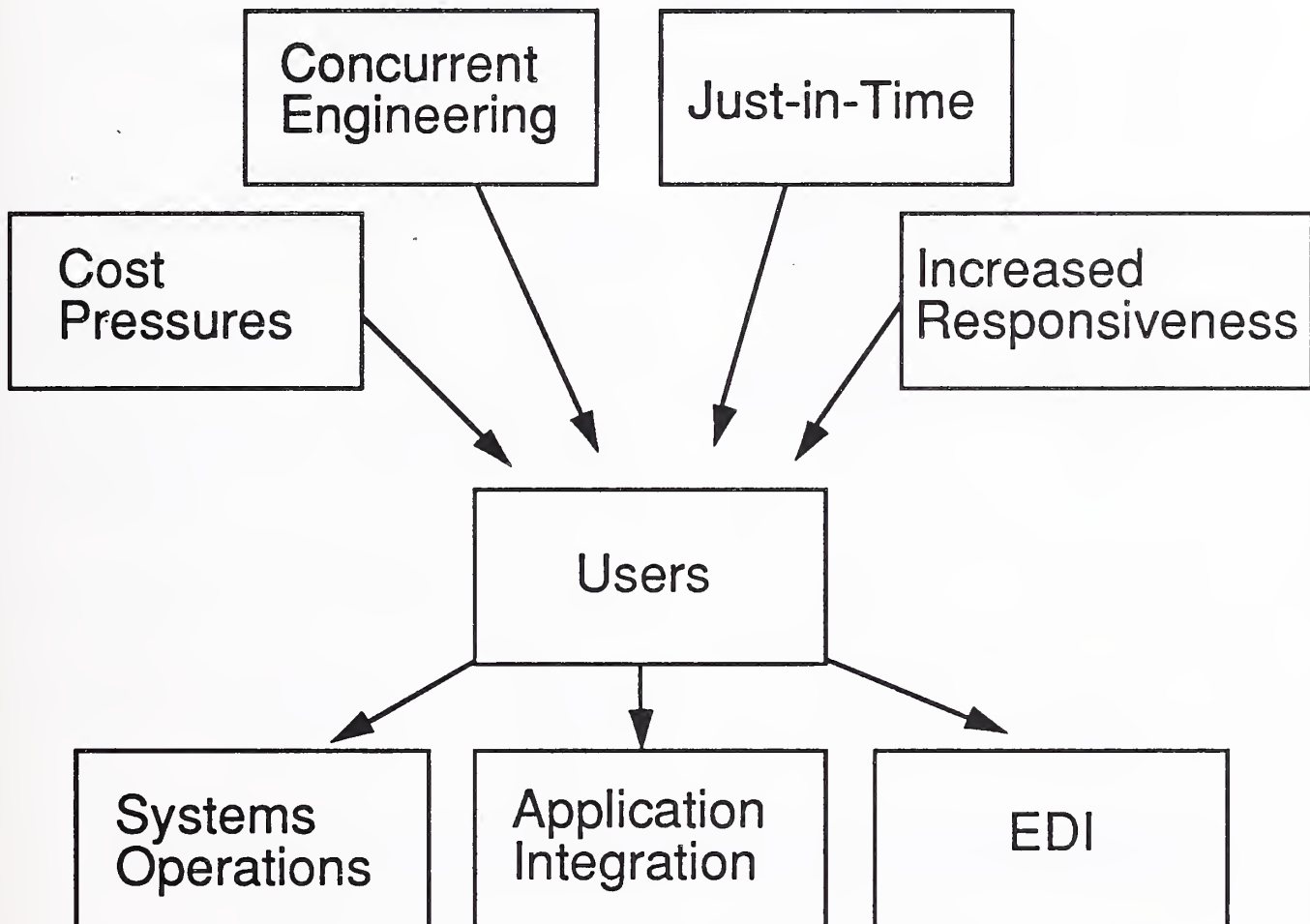


Western European EDI Markets by Vertical Sector, 1989



Total Market = \$30 Million

The User Pressures



Vendor Issues: Collaboration

- IBM Approved Industrial Systems Integrators
- CINCOM "CIM Alliance" Programme
- Siemens and LUCAS E&S
- ASK and EDS
- Sligos and Mesarteam

Vendor Requirements from Partners

Vendor Category Vendor Requirements	Application Software Product Vendors	Professional Services and Systems Integration Vendors	Major Equipment Vendors
Complementary Application Packages	High	High	High
Specialised Professional Services	High	Low	Medium
Systems Integration	Medium	None	Low

Summary of level of vendor requirement by vendor category.

European Discrete Manufacturing Software and Services Leading Vendors (1989)

Company	Estimated Revenues (\$ Millions)	Market Share %
IBM	342	5.1
Nixdory	223	3.3
Prime	182	2.7
Intergraph	170	2.5
CGS*	168	2.5

* Excludes Hoskyns' \$63 million.
Industry-specific revenues only.

Vendor Strategies

- Major equipment vendors and professional services vendors battle for systems integration market
- Application software products vendors move to UNIX
- IBM seeks to impose CIM architecture
- Partnerships versus product ownership

Conclusions: Key Opportunities

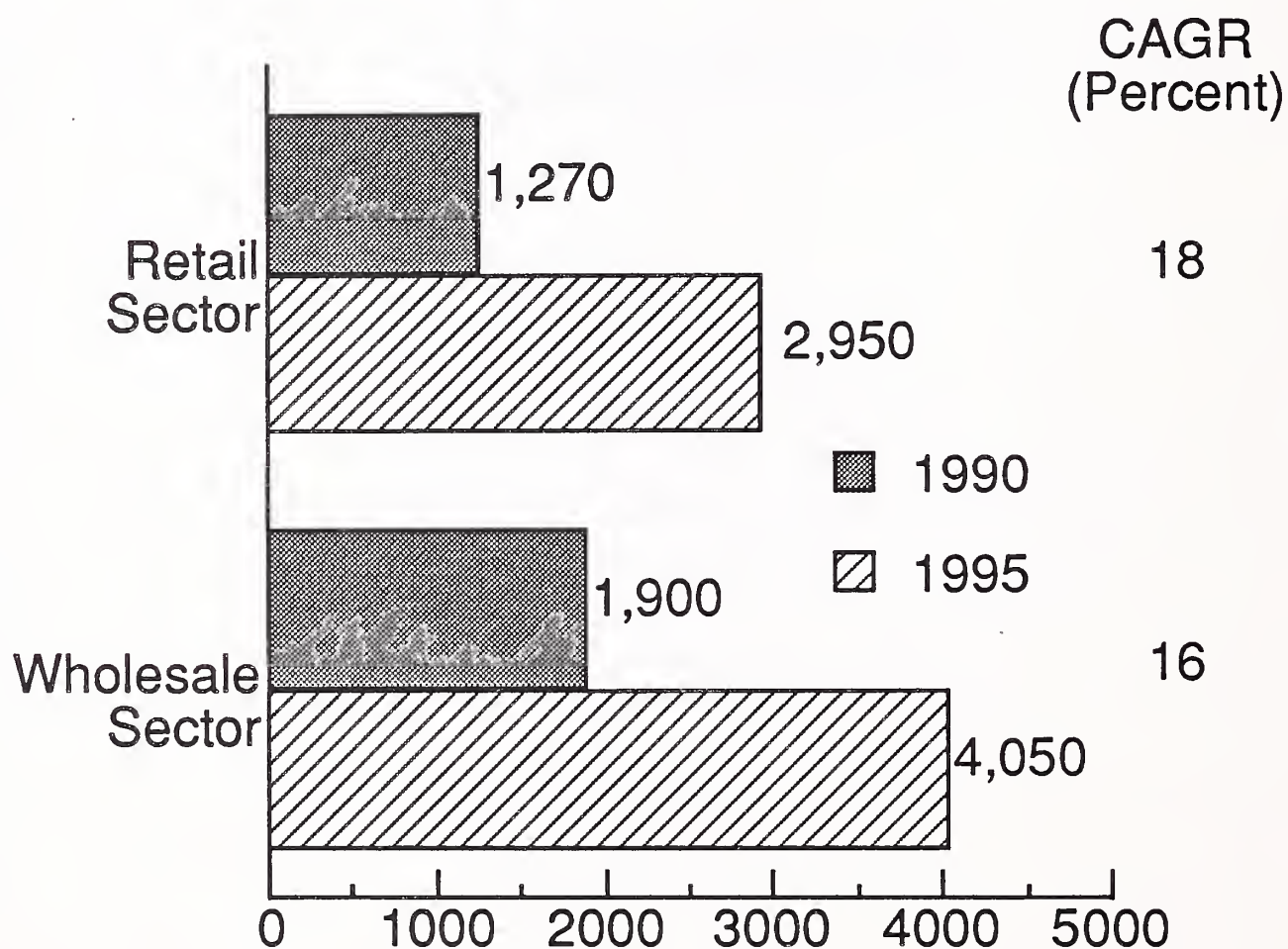
- Integration of major application areas
- EDI in support of JIT
- Cost reduction through professional services and systems operations
- Software products facilitating integration of “islands of automation”
- Partnerships are essential

Conclusions: Application Software Product Opportunities

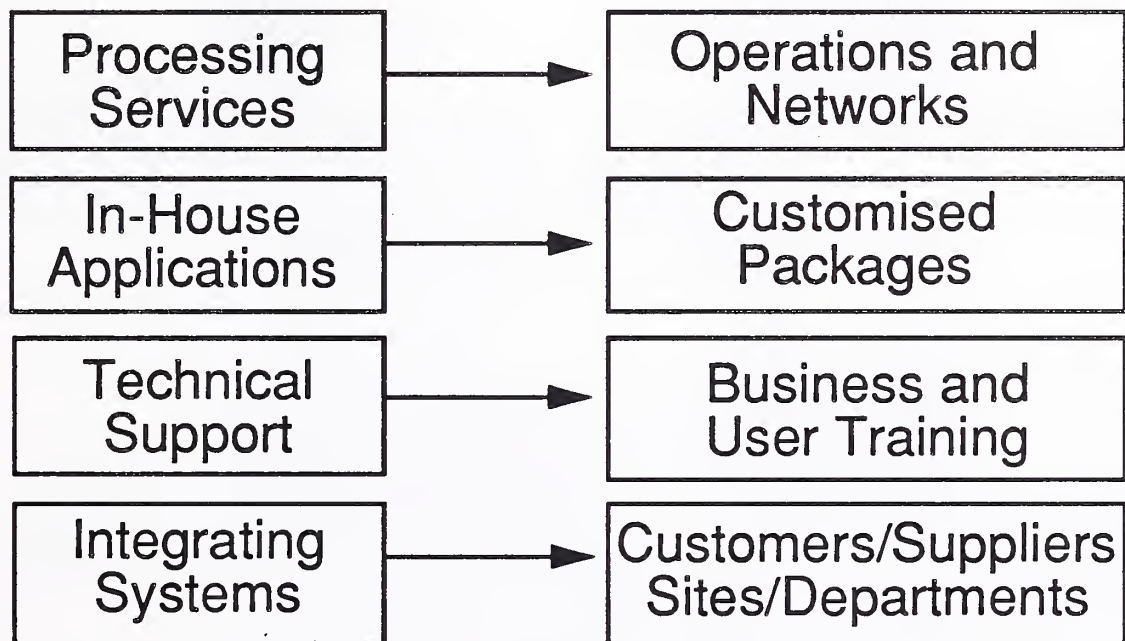
- MRP II replacement on pan-European basis
- Shopfloor data capture and control
- Engineering data management
- Completion of "CIM wheel"

Distribution

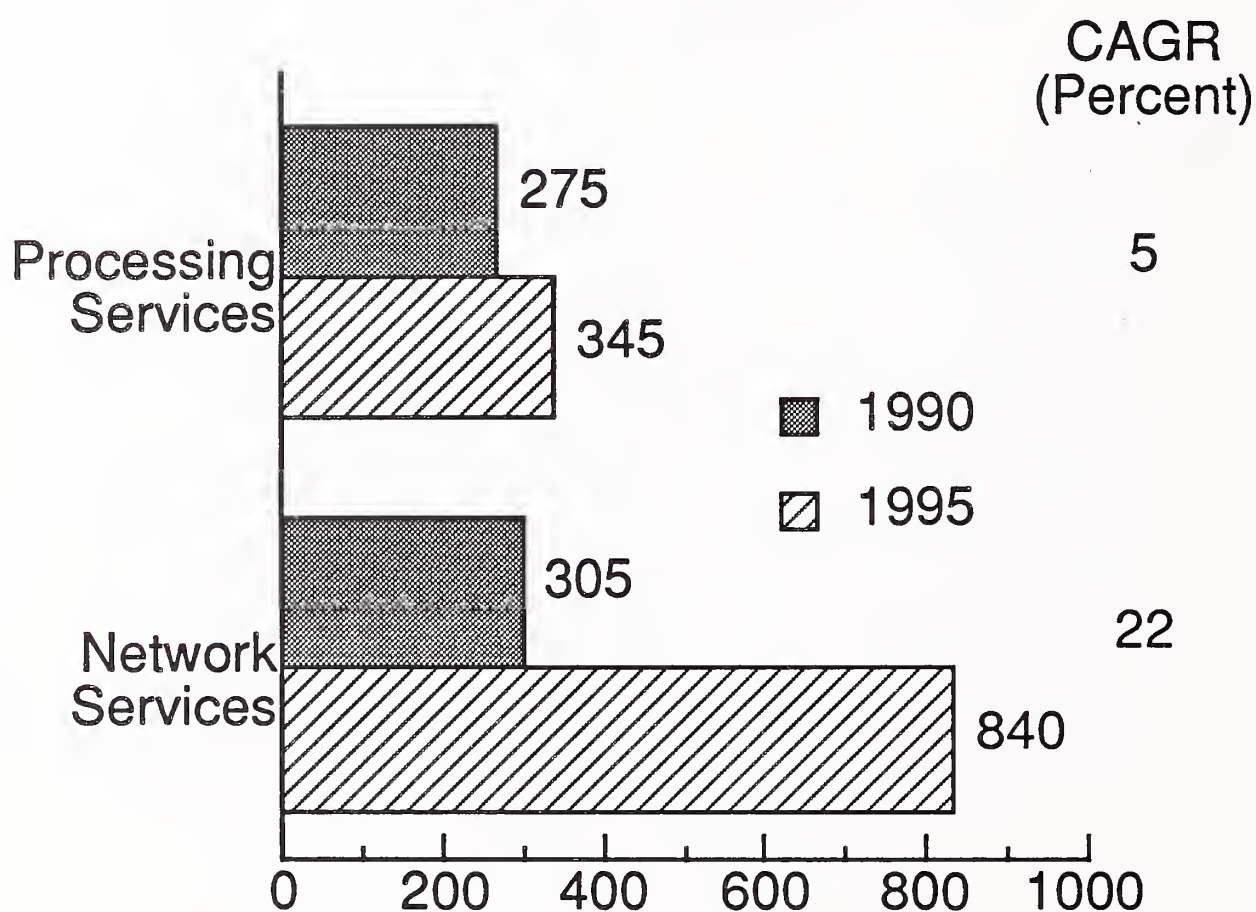
Industry-Specific Software Services Distribution Sector



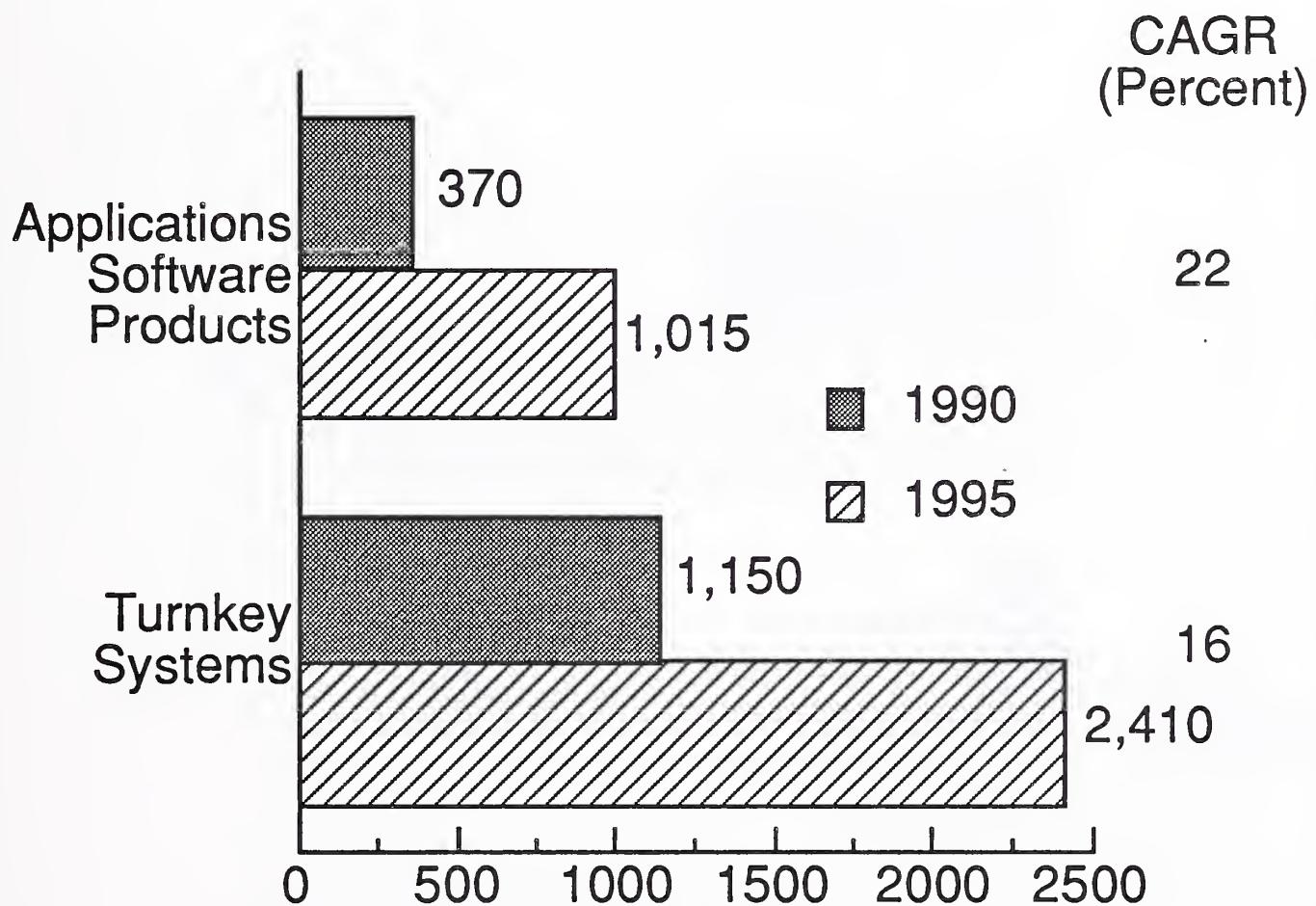
Software and Services The Changing Needs



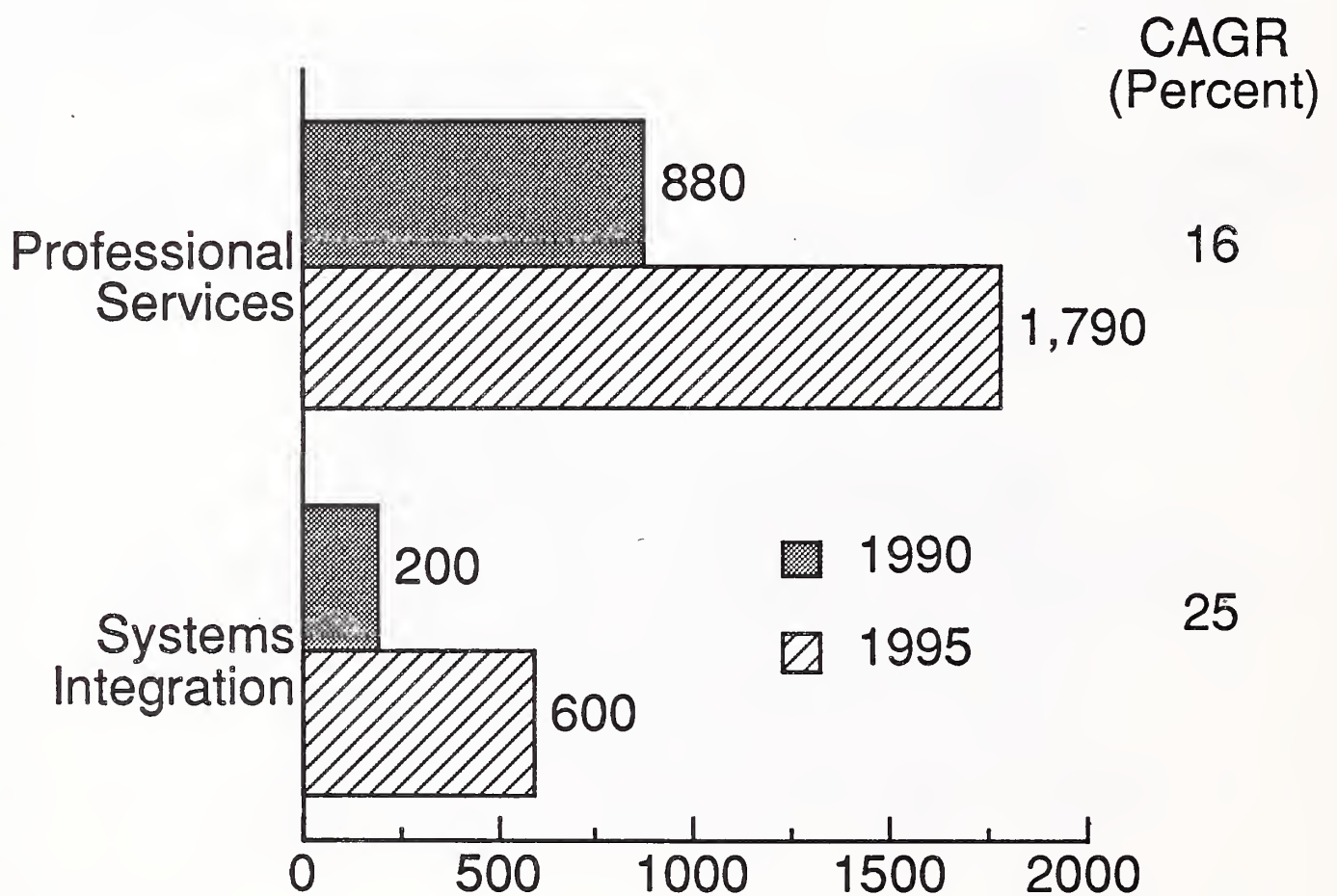
Processing Services and Network Services



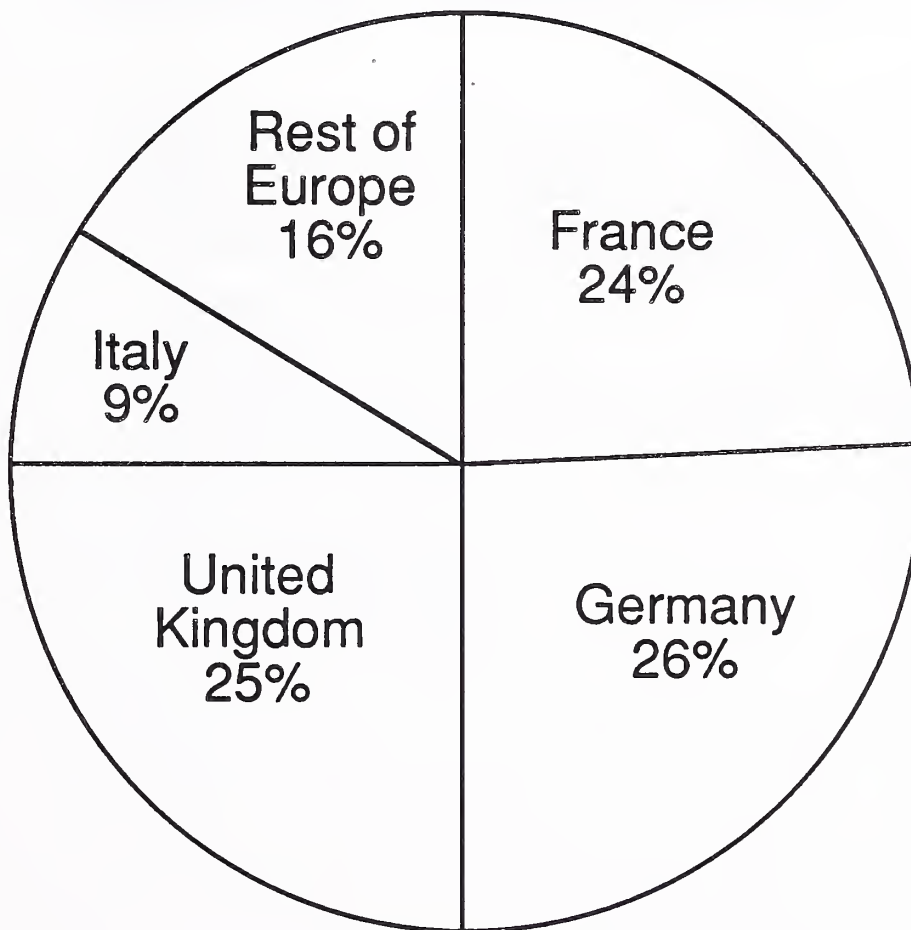
Applications Software and Turnkey Systems



Professional Services and Systems Integration



Software and Services Expenditure by Country, 1990



Software and Services Expenditure as Percent of Retail Company Revenues

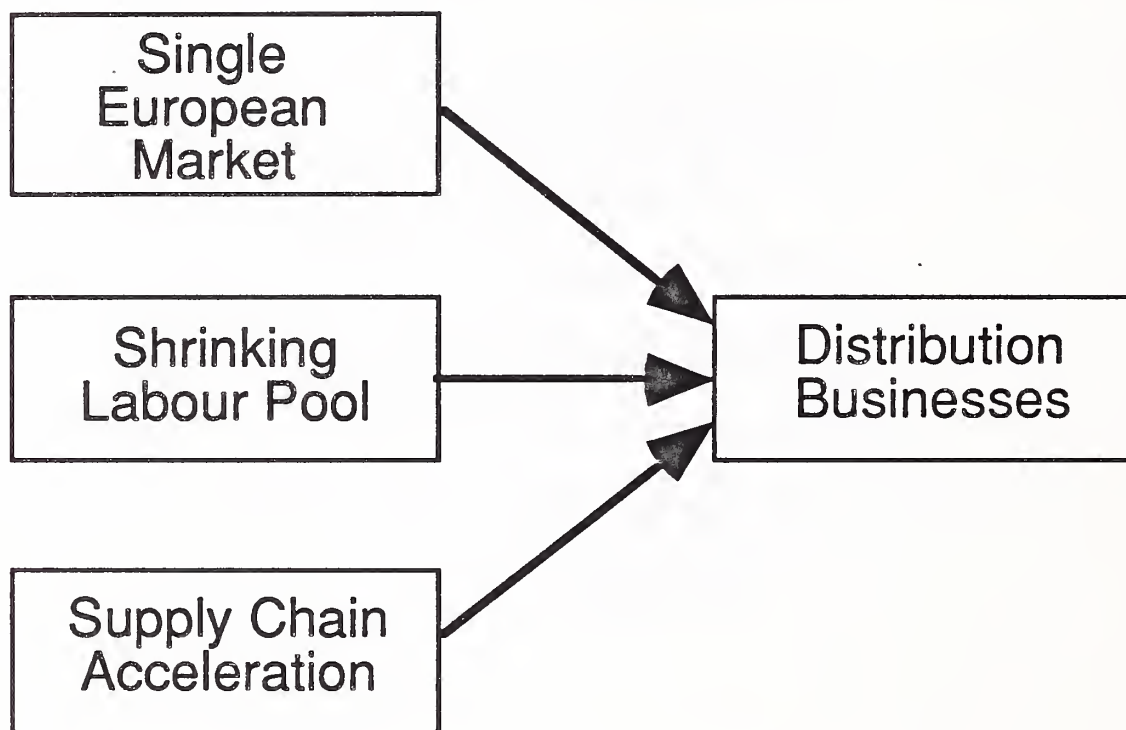
Country	Percent
United Kingdom	0.40
France	0.30
West Germany	0.25
Italy	0.10

User Issues

The Key Challenges

- Increase speed
 - Information
 - Products
- Reduce costs
 - Stock
 - Space
 - People

Distribution Business Pressures

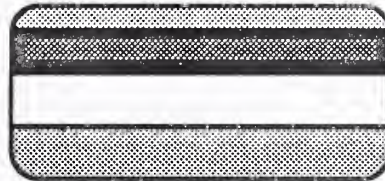


Key Technologies and Standards

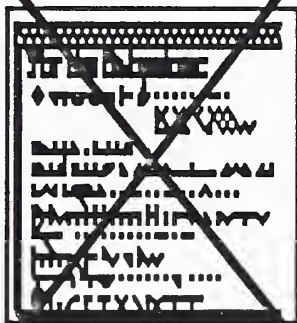
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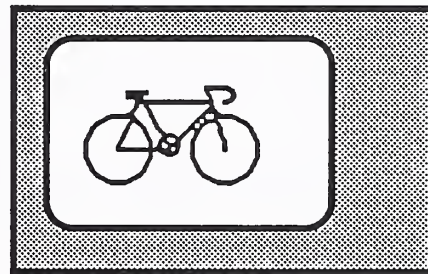
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POS



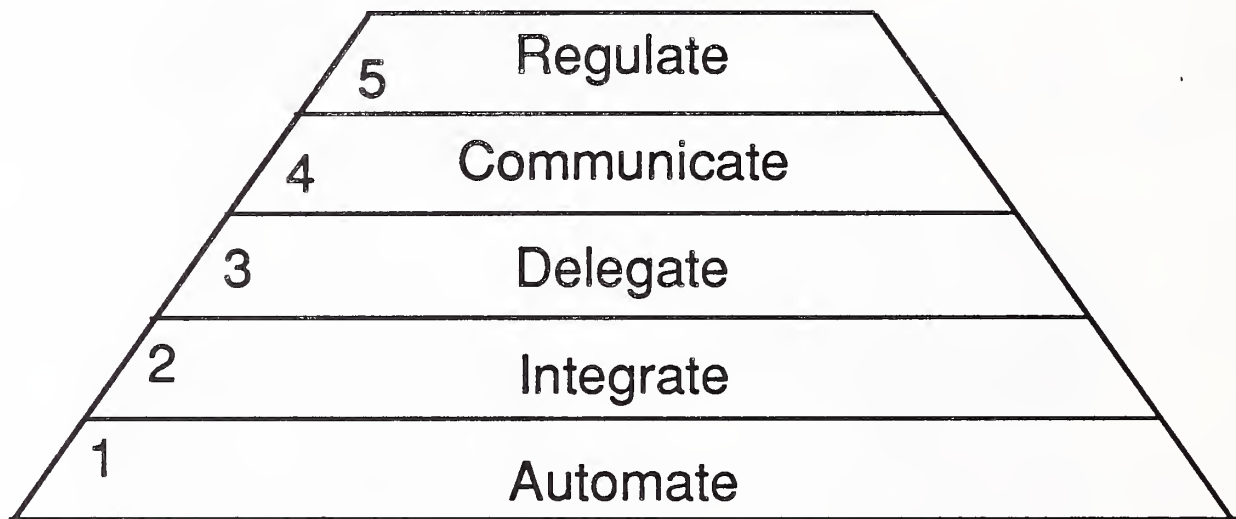
EDI



Image



Five-Stage Analysis of Distribution Development



Leading Vendors European Distribution 1989

Rank	Company	Market Share (Percent)	Estimated Revenue (\$ M)
1	IBM	11.0	300
2	Nixdorf	3.5	95
3	GSI	2.0	55
4	CGS	1.9	50
5	NCR	1.7	45

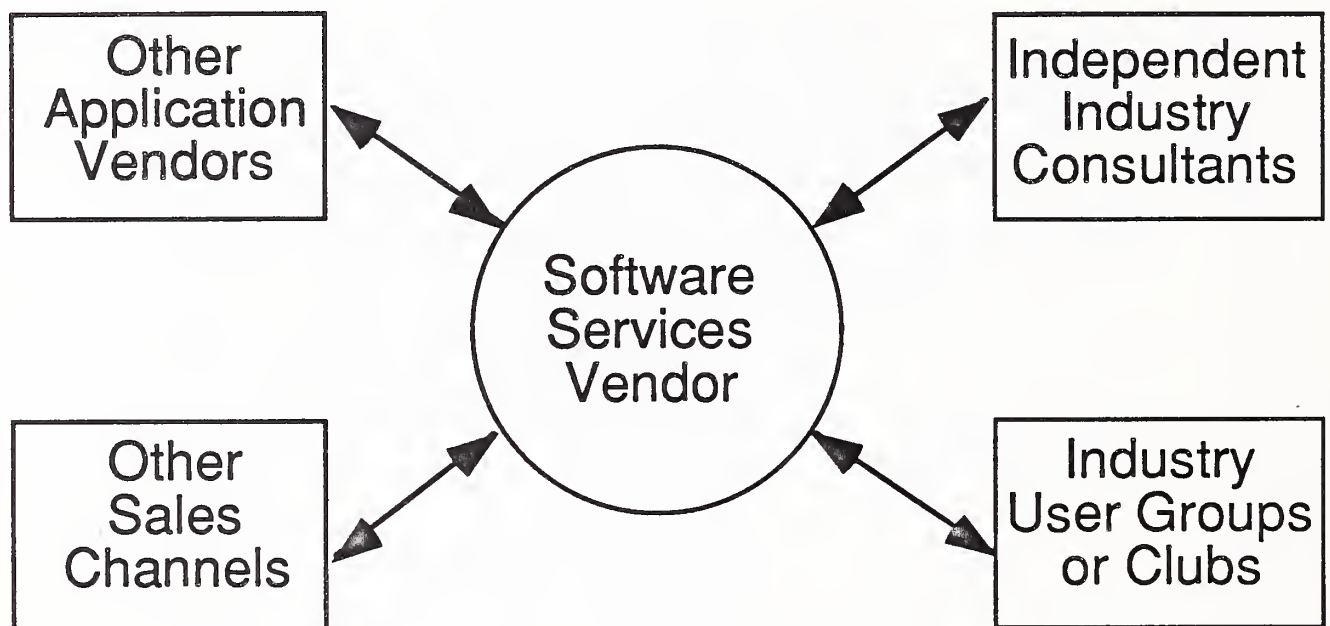
Equipment Vendor Issues Internal vs. External

Internal	External
Systems integration Market share Partnerships UNIX Sector expertise	Total supply chain systems

Independent Vendor Issues Internal vs. External

Internal	External
Sector expertise	Systems integration EDI exploitation Education Competition

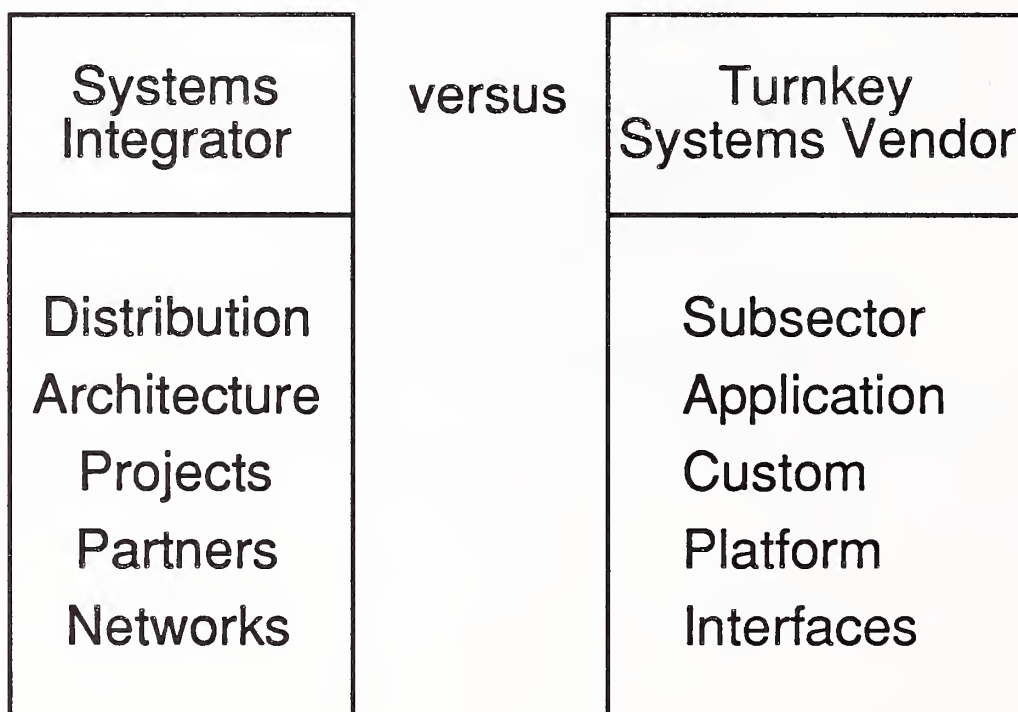
Essential Supporting Partnerships



Applications in Distribution Key Success Factors

- Narrow industry focus
- Easy tailoring and learning
- Demonstrable performance
- Portable and connectable
- Channel partners

Systems Integration Track Record Comparison



Systems Integration in Distribution Key Success Factors

- Industry reputation
- Project management
- Partner ability
- Pan-European support
- Architectural skills

About INPUT

INPUT provides planning information, analysis, and recommendations to managers and executives in the information processing industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions.

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